# IN THE UNITED STATES DISTRICT COURT FOR THE DISTRICT OF DELAWARE

S.O.I.TEC SILICON ON INSULATOR TECHNOLOGIES S.A. and SOITEC USA, INC.,

JURY TRIAL DEMANDED

Plaintiffs,

Civil Action No.:

05-806

v

MEMC ELECTRONIC MATERIALS, INC.,

Defendant.

#### COMPLAINT FOR DECLARATORY JUDGMENT

Plaintiffs S.O.I.TEC Silicon On Insulator Technologies S.A. and Soitec USA, Inc. (collectively, "Soitec"), for their complaint for declaratory judgment against Defendant MEMC Electronic Materials, Inc. ("MEMC"), allege as follows that United States Patent Nos. 5,919,302; 6,236,104; 6,254,672; 6,287,380; 6,342,725; 6,849,901; and 6,409,827 (collectively, "the patents-insuit") are invalid and/or not infringed by Soitec.

#### THE PARTIES

1. Soitec, established in 1992, is the leading technology developer and manufacturer of silicon-on-insulator ("SOI") semiconductor wafers and other engineered substrates used in the electronics industry. Soitec's unique proprietary technologies include its patented Smart Cut™ technology and UNIBOND™ process. Soitec's technological innovations have resulted in awards of over 100 patents worldwide.

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- 2. S.O.I.TEC Silicon On Insulator Technologies S.A. is organized as a Societé Anonyme under the laws of France and has a principal place of business in Bernin, France.
- 3. Soitec USA, Inc., a wholly-owned subsidiary of S.O.I.TEC Silicon On Insulator Technologies S.A., is a corporation organized under the laws of the Commonwealth of Massachusetts and has a principal place of business in Peabody, Massachusetts.
- 4. On information and belief, MEMC is a corporation organized and existing under the laws of the State of Delaware and has a principal place of business in St. Peters, Missouri.

### JURISDICTION AND VENUE

- 5. This action arises under the Patent Laws of the United States. 35 U.S.C. §1 et seq.
- 6. This Court has jurisdiction over the subject matter of these claims under 28 U.S.C. §§1331, 1338(a), 2201, and 2202.
- 7. Venue is proper in this judicial district under 28 U.S.C. §§1391(b) and 1391(c).

#### FACTS COMMON TO ALL COUNTS

8. Soitec develops and manufactures semiconductor products, including silicon-on-insulator structures. Since at least 1996 Soitec has made these semiconductor products exclusively at its manufacturing facility in Bernin, France and sold them in the United States. Soitec continues to make these semiconductor products and sell them in the United States.

- 9. By letter dated October 14, 2004 (attached as Exhibit 1), MEMC, by its Senior Vice President of Research and Development, Dr. Shaker Sadasivam, inquired of Mr. Emmanuel Huyghe, Soitec's Industrial Property Manager, as to why Soitec's semiconductor products and their preparation fell outside of MEMC's alleged patent estate, including U.S. Pat. Nos. 5,919,302; 6,236,104; 6,254,672; 6,287,380; and 6,342,725.
- 10. U.S. Patent No. 6,409,827 ("the '827 patent") was issued to MEMC on June 25, 2002, and is a continuation of U.S. Patent No. 6,287,380. The '827 patent claims priority to the same application as U.S. Patent Nos. 5,919,302; 6,254,672; and 6,287,380, was issued subject to a terminal disclaimer as to the portion of its term, and is substantially the same as U.S. Patent No. 6,287,380.
- 11. Subsequent to MEMC's October 2004 letter, U.S. Patent No. 6,849,901 ("the '901 patent") was issued to MEMC. The '901 patent claims priority to the same applications as U.S. Patent Nos. 6,236,104 and 6,342,725, and it was issued subject to a terminal disclaimer as to the portion of its term extending beyond the life of those patents.
- 12. In correspondence to Soitec including a letter dated October 21, 2005 (attached as Exhibit 2) MEMC, by its Vice President and General Counsel, Bradley D. Kohn, accused Soitec of past and continuing infringement of MEMC's intellectual property and requested a response by November 15, 2005.
- 13. In a November 8, 2005 phone call and subsequent email (attached as Exhibit 3), Soitec, by its General Counsel Jacques Elie Levy, responded to the

letter dated October 21 and offered to travel to MEMC's principal place to meet with MEMC to discuss MEMC's allegations of infringement.

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- 14. In an email dated November 18, 2005 (attached as Exhibit 4), MEMC, by its Vice President and General Counsel, Bradley D. Kohn, advised Mr. Levy that the contemplated meeting would be futile unless Soitec were "to arrive with a specific proposal that addresses how Soitec intends to remedy what we [MEMC] believe is significant past infringement and continuing infringement." Mr. Kohn declined to meet to "debate" whether or not Soitec was infringing the MEMC patents, and stated that, "There are more appropriate forums in which to have that debate."
- 15. As a result of the communications culminating in the email of November 18, 2005, Soitec is in fear and apprehension that MEMC will commence action against Soitec for infringement at least of U.S. Pat. Nos. 5,919,302; 6,236,104; 6,254,672; 6,287,380; 6,342,725; 6,849, 901; and 6,409,827.

### **COUNT I - INVALIDITY AND NONINFRINGEMENT** (U.S. PATENT NO. 5,919,302)

- 16. Soitec realleges and incorporates herein by reference the allegations set forth in paragraphs 1-15.
- On information and belief, MEMC is the assignee and owner of 17. United States Patent No. 5,919,302 entitled "Low Defect Density Vacancy Dominated Silicon" ("the '302 patent"), a copy of which is attached hereto as Exhibit 5.

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- 18. As a result of the aforementioned correspondence, and based on the threats made therein, Soitec has a reasonable fear and apprehension that MEMC will commence an action against it in the United States for infringement of the '302 patent.
- 19. An actual and justiciable controversy therefore exists between the parties.
  - 20. Soitec does not infringe the '302 patent.
  - 21. On information and belief, the '302 patent is invalid.

### COUNT II - INVALIDITY AND NONINFRINGEMENT (U.S. PATENT NO. 6,236,104)

- 22. Soitec realleges and incorporates herein by reference the allegations set forth in paragraphs 1-21.
- 23. On information and belief, MEMC is the assignee and owner of United States Patent No. 6,236,104 entitled "Silicon On Insulator Structure From Low Defect Density Single Crystal Silicon" ("the '104 patent"), a copy of which attached hereto as Exhibit 6.
- 24. As a result of the aforementioned correspondence, and based on the threats made therein, Soitec has a reasonable fear and apprehension that MEMC will commence an action against it in the United States for infringement of the '104 patent.
- An actual and justiciable controversy therefore exists between the 25. parties.
  - 26. Soitec does not infringe the '104 patent.
  - 27. On information and belief, the '104 patent is invalid.

## COUNT III - INVALIDITY AND NONINFRINGEMENT (U.S. PATENT NO. 6,254,672)

- 28. Soitec realleges and incorporates herein by reference the allegations set forth in paragraphs 1-27.
- 29. On information and belief, MEMC is the assignee and owner of United States Patent No. 6,254,672 entitled "Low Defect Density Self-Interstitial Dominated Silicon" ("the '672 patent"), a copy of which attached hereto as Exhibit 7.
- 30. As a result of the aforementioned correspondence, and based on the threats made therein, Soitec has a reasonable fear and apprehension that MEMC will commence an action against it in the United States for infringement of the '672 patent.
- 31. An actual and justiciable controversy therefore exists between the parties.
  - 32. Soitec does not infringe the '672 patent.
  - 33. On information and belief, the '672 patent is invalid.

### COUNT IV - INVALIDITY AND NONINFRINGEMENT (U.S. PATENT NO. 6,287,380)

- 34. Soitec realleges and incorporates herein by reference the allegations set forth in paragraphs 1-33.
- 35. On information and belief, MEMC is the assignee and owner of United States Patent No. 6,287,380 entitled "Low Defect Density Silicon" ("the '380 patent"), a copy of which attached hereto as Exhibit 8.
- 36. As a result of the aforementioned correspondence, and based on the threats made therein, Soitec has a reasonable fear and apprehension that

MEMC will commence an action against it in the United States for infringement of the '380 patent.

- 37. An actual and justiciable controversy therefore exists between the parties.
  - 38. Soitec does not infringe the '380 patent.
  - 39. On information and belief, the '380 patent is invalid.

### COUNT V - INVALIDITY AND NONINFRINGEMENT (U.S. PATENT NO. 6,342,725)

- 40. Soitec realleges and incorporates herein by reference the allegations set forth in paragraphs 1-39.
- 41. On information and belief, MEMC is the assignee and owner of United States Patent No. 6,342,725 entitled "Silicon On Insulator Structure Having a Low Defect Density Handler Wafer and Process for the Preparation Thereof" ("the '725 patent"), a copy of which attached hereto as Exhibit 9.
- 42. As a result of the aforementioned correspondence, and based on the threats made therein, Soitec has a reasonable fear and apprehension that MEMC will commence an action against it in the United States for infringement of the '725 patent.
- 43. An actual and justiciable controversy therefore exists between the parties.
  - 44. Soitec does not infringe the '725 patent.
  - 45. On information and belief, the '725 patent is invalid.

## COUNT VI - INVALIDITY AND NONINFRINGEMENT (U.S. PATENT NO. 6,849,901)

- 46. Soitec realleges and incorporates herein by reference the allegations set forth in paragraphs 1-45.
- 47. On information and belief, MEMC is the assignee and owner of United States Patent No. 6,849,901 entitled "Device Layer of a Silicon-On-Insulator Structure Having Vacancy Dominated and Substantially Free of Agglomerated Vacancy-Type Defects" ("the '901 patent"), a copy of which attached hereto as Exhibit 10.
- 48. As a result of the aforementioned correspondence, and based on the threats made therein, Soitec has a reasonable fear and apprehension that MEMC will commence an action against it in the United States for infringement of the '901 patent.
- 49. An actual and justiciable controversy therefore exists between the parties.
  - 50. Soitec does not infringe the '901 patent.
  - 51. On information and belief, the '901 patent is invalid.

# COUNT VII - INVALIDITY AND NONINFRINGEMENT (U.S. PATENT NO. 6,409,827)

- 52. Soitec realleges and incorporates herein by reference the allegations set forth in paragraphs 1-51.
- 53. On information and belief, MEMC is the assignee and owner of United States Patent No. 6,409,827 entitled "Low Defect Density Silicon and a Process for Producing Low Defect Density Silicon wherein V/G0 is Controlled by

Controlling Heat Transfer at the Melt/Solid Interface" ("the '827 patent"), a copy of which attached hereto as Exhibit 11.

- 54. As a result of the aforementioned correspondence, and based on the threats made therein, Soitec has a reasonable fear and apprehension that MEMC will commence an action against it in the United States for infringement of the '827 patent.
- 55. An actual and justiciable controversy therefore exists between the parties.
  - 56. Soitec does not infringe the '827 patent.
  - 57. On information and belief, the '827 patent is invalid.

#### PRAYERS FOR RELIEF

WHEREFORE, Soitec requests judgment against MEMC and respectfully prays that this Court enter orders that:

- (a) Declare that the claims of the patents-in-suit are invalid;
- (b) Declare that Soitec has not committed any act of direct and/or indirect infringement of the patents-in-suit with respect to products that Soitec makes, uses, imports into the United States, offers for sale, or sells;
- (c) Enjoin MEMC, its agents, servants, employees and attorneys, and all those in active participation or privity with any of them, from charging Soitec or its agents, distributors, or customers with infringement of any of the patents-insuit, from representing to others that Soitec is liable for patent infringement of any of the patents-in-suit, and from otherwise interfering in any way with Soitec's

manufacture, use, import into the United States, offer for sale, or sale of semiconductor materials;

- (d) This is an exceptional case, pursuant to 35 U.S.C. § 285. Soitec therefore specifically requests that the Court increase its damage award and award Soitec its reasonable attorney's fees, expenses and costs in this action; and
- (e) Grant Soitec such other and further relief as the Court deems just and proper.

#### JURY TRIAL DEMANDED

Pursuant to Federal Rule of Civil Procedure 38, Soitec demands a trial by jury on all issues so triable.

Dated: November 21, 2005

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